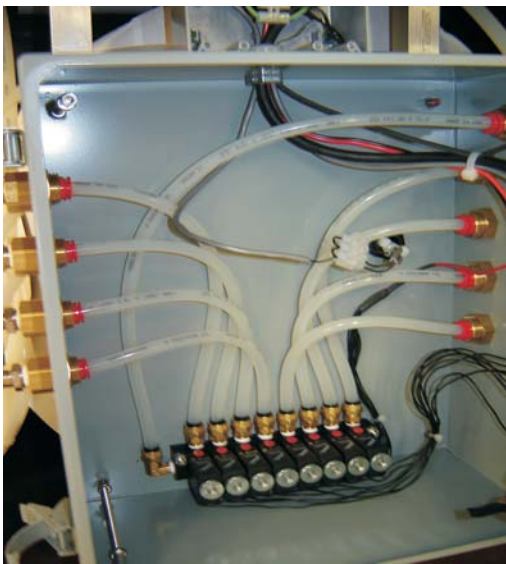




OVERVIEW

Vertex Environmental Inc. staff have designed, constructed and operated a series of pneumatic skimmer skimmers for the removal of free phase petroleum hydrocarbons including naphtha, gasoline, diesel, fuel oils and crude oil. Geologic environments in which Vertex has installed skimmer systems include fractured rock, glacial till and other unconsolidated materials such as sand, gravel and silty sands. At an operating refinery in Saudi Arabia, Vertex conducted a series of tests to determine full scale operating parameters for a skimmer system to remove free phase light and heavy crude oil.



STUDY PARAMETERS

- Free phase treated
 - Heating Oil
 - Light Crude
 - Heavy Crude
- Geology - Fill and silty sand
- Determine radius of influence and capture under a variety of conditions
- Determine removal rates and cycle times
- Determine effect of sand pack diameter and screen slot size
- Determine withdraw rates of wells versus trenches

The results of the testing program indicated that the free phase light and heavy crude could be effectively removed using pneumatic skimmers, however the area of capture was limited and a function of geology, sand pack and screen size. Enhancement of the system could be achieved by applying a low vacuum as well as using ideal diameter sand packs and slotted screen.



Vertex combines strong theoretical understanding with practical experience to properly plan and implement the right remedial program for your site. Selecting Vertex to undertake your remediation project allows you to access a wealth of experience and knowledge.